

**VALENCIA WASTE MANAGEMENT LTD** 

FOXHALL LANDFILL, SUFFOLK – APPLICATION TO VARY PERMIT NUMBER EPR/BW2943IG

**AMENITY AND ACCIDENT RISK ASSESSMENT** 

**JUNE 2024** 



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# VALENCIA WASTE MANAGEMENT LTD FOXHALL LANDFILL, SUFFOLK – APPLICATION TO VARY PERMIT NUMBER EPR/BW2943IG AMENITY AND ACCIDENT RISK ASSESSMENT



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## 1 INTRODUCTION

- 1.1.1 Wardell Armstrong have been instructed to prepare an application to vary the permit for Foxhall Landfill at Brightwell, Suffolk. The site is operated by Valencia Waste Management Ltd (Valencia) under permit number EPR/BW2943IG.
- 1.1.2 Valencia is seeking to move waste up the waste hierarchy by manually sorting mixed non-hazardous waste arriving at the landfill to recover metals and wood for recycling. Wastes suitable for reuse as landfill cover or road maintenance will also be recovered from the mixed waste. The residual wastes will be placed in the landfill.
- 1.1.3 This Amenity and Accident Risk Assessment identifies the potential environmental hazards that may arise through activities carried out at the new Material Recycling Facility (MRF). This document also sets out the mitigation measures that will be implemented to protect the local population and environment. The risk assessment follows the source-pathway-receptor model, as outlined in the Environment Agency guidance on 'Risk Assessments for your Environmental permit'.
- 1.1.4 The activities to be carried out at the MRF are described in section 2, and the location of sensitive receptors in proximity to the site are set out in section 3.
- 1.1.5 The Accident and Amenity Risk Assessment is provided in Section 4. This sets out the potential risks from the activities on site (source), who may be affected (receptor) and how (pathway), the mitigation measures that will be implemented and an assessment of the overall risk. A summary of the risk assessment is provided in section 5.

# 2 ACTIVITIES AT THE SITE

- 2.1.1 Up to 100,000 tonnes of mixed non-hazardous and inert wastes will go through the MRF annually.
- 2.1.2 Waste will be treated via a picking line to separate the metals and wood into discrete outputs ready for recycling, recovery or disposal.
- 2.1.3 Materials such as bricks, stones and glass which may be suitable for landfill cover or road maintenance will be separated and stored pending reuse.
- 2.1.4 Recyclable metal and wood outputs will be stored in dedicated containers or bays pending loading and removal to a permitted recycling site.
- 2.1.5 The layout of the MRF is shown on drawing FOX-MRF001.



## 3 SENSITIVE RECEPTORS

- 3.1.1 The Site is not considered to be located in a particularly sensitive location. The MRF building is located within the existing landfill boundary, to the east of the Site.
- 3.1.2 The Site is situated in open countryside 8km to the east of Ipswich Town Centre. The Site is bounded to the southeast by the A12 dual carriage way and to the north by Foxhall Road. To the western side of the site is woodland and to the south of the Site the land slopes down into the Mill River Valley.
- 3.1.3 The closest residential receptor is a property which lies 370m to the northeast. Beyond that lies Sheep Drift Farm and Sheep Drift Cottage. The closest commercial and industrial receptor is Brightwell Corner Agricultural Store and Storage Barns, located 160m to the east of the Site.
- 3.1.4 There are a number of protected habitats in the proximal surrounding area, the closest protected habitat is Ipswich Heaths SSSI, which has its closest point approximately 950m northwest from the Site. New Bourn Springs SSSI lies approximately 1.7k to the east and Waldringfield Pit SSSI lies 1.8k to the northeast. Multiple areas of protected deciduous woodland lie with 2km of the site, the closes area being 260m to the southeast. A Habitats Risk Assessment has also been prepared to assess the potential risk from the MRF to the sensitive habitats and species identified.
- 3.1.5 The sensitive receptors within 1km of the Site are shown on drawing ST20399-002 Receptor Plan, and receptors within 2km of the Site are also listed in Table 3.1 below.

Table 3.1: Sensitive Receptors within 2km of the Site									
Receptor	Receptor Type	Distance/Direction							
Brightwell Storage/ Brightwell	Commercial	160m, east							
Corner Agricultural Store									
Brightwell Hill Plantation	Environmental	260m, southeast							
Deciduous woodland	Protected Habitat	260m, southeast							
Pond	Environmental	370m, south							
Residential property	Residential	370m, northeast							
St John The Baptist's Church	Leisure	470m, southeast							
Suffolk County Council HWRC	Commercial	500m, east							
Openreach	School/Commercial	512m north							
Telecommunications school									
Mill River	Environmental	540m, south							



Table 3.1: Sensitive Receptors within 2km of the Site								
Receptor	Receptor Type	Distance/Direction						
Sheep Drift Farm House	Residential	610m, northeast						
Martlesham Heath Residential	Residential	610m, north						
area								
Martlesham Heath Residential	Residential	610m, north						
area								
Foxhall Recycling Centre	Commercial	630m, west						
Street Farm Cottage	Residential	660m, southwest						
Dukes' Hill Wood	Environmental	700m, west						
Ipswich Packaging Services	Commercial	700m, north east						
A2-M Ltd. Fence contractor	Commercial	725m, north east						
Tillio Race Prep Ltd, Car body	Commercial	750m northeast						
shop								
Sheep Drift Cottage	Residential	860m, northeast						
Lewis Cottage	Residential	940m, southwest						
Ipswich Heaths SSSI	Protected habitat	950m, northwest						
The Stables Coffee Shop and	Commercial	960m, north east						
Sandwich Bar								
Birchwood Primary School	School	1.3km, north						
Nursery cottages	Residential	1.3km, northwest						
Hall cottage	Residential	1.4km, west						
Playing field	Leisure	1.5km, northwest						
Foxhall Hall	Residential	1.5km, west						
Foxhall Court	Care home	1.7km, northwest						
Newbourn Springs SSSI	Protected habitat	1.7km, east						
Waldringfield Pout SSSI	Protected habitat	1.8km, northeast						

## 4 RISK ASSESSMENT

4.1.1 For the receptors outlined in Table 3.1 above to be at risk there must be a source of pollution and a pathway by which that pollution can reach the receptor. Management of the risks will have two elements, reducing the source of pollution by good management of the site, for example by limiting the quantity of waste, and the period for which it is stored and placing control measures in place to break the pathway and prevent pollution reaching the receptors, e.g. providing a sealed drainage system.



- 4.1.2 Table 4.1 identifies the risks and describes the control measures in place to ensure that impacts on the receptors are minimised.
- 4.1.3 All staff will receive initial training to ensure that they are aware of the Environmental Management System (EMS) and are familiar with those sections relevant to their role. Refresher training will be given as needed.
- 4.1.4 Records will be maintained of all complaints, incidents and near misses. These will be reviewed annually to identify trends and inform improvements to the EMS.
- 4.1.5 Daily inspections will be made around the outside of the MRF to ensure that dust, noise, odour and litter are being effectively controlled. Should these inspections indicate that emissions are occurring then the site manager will be informed, the cause will be investigated and suitable mitigation will be instigated.
- 4.1.6 Should it be that the mitigation will require significant investment of resources and may take some time, this will be communicated to local businesses and residents explaining the measures to be implemented and the likely timescales. The public are offered the opportunity of a local liaison group and meetings will be held at a frequency led by the local community.

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	Table 4.1: Risks to the Environment and Mitigation Measures									
Hazard	Receptor	Pathway	Consequence	Probability of exposure without mitigation	Overall Risk	Mitigation measures	Residual risk			
Dust	Local residents and local businesses	Windblown	Nuisance, potential harm to health (e.g. respiratory irritation)	Medium	Medium	All waste storage and treatment is carried out inside the MRF building.  Wheel wash available to be used as needed.  Dust damped down if required during dry weather.  Site roads properly maintained and swept as necessary.  Plant properly maintained to minimise emissions.  Dust Management Plan is in place.	Low			
Litter	Local wildlife, local residents, local businesses	Windblown	Detriment to the amenity, harm to wildlife, nuisance	Medium	Medium	All vehicles carrying waste to the MRF to be enclosed or sheeted. Waste is unloaded inside building with doors closed.  All waste storage and treatment carried out inside the MRF building.  Any litter to be collected daily and placed in the appropriate bay inside the building.	Low			
Pests/Vermin	Local wildlife, local residence, local businesses	Through the air, across the ground	Detriment to the amenity, potential harm to health (e.g. spread of disease), nuisance	Low	Low	All waste will be stored and treated inside the MRF building.  Waste treated on a first in, first out basis with residual waste removed within 72 hours of receipt.  No putrescible waste to be treated which could attract flies.	Low			



	Table 4.1: Risks to the Environment and Mitigation Measures								
Hazard	Receptor	Pathway	Consequence	Probability of exposure without mitigation	Overall Risk	Mitigation measures	Residual risk		
Noise	Local residents and local businesses	Through the air	Disturbance	Low	Low	Sorting of waste carried out inside a building.  Machinery properly maintained and serviced and turned off when not in use.  Good traffic management around the site to minimise reversing and idling. Nearest sensitive receptor 370m away.	Low		
Odour	Local residents and local businesses	Through the air	Nuisance	Medium	Medium	Waste stored and treated inside a building. Waste treated on a first in, first out basis with residual waste removed within 72 hours of receipt. No putrescible waste to be treated. Odour Management Plan is in place.	Low		
Emissions to groundwater	Groundwater beneath the site	Through the ground	Pollution of groundwater	Low	Low	Waste storage and treatment areas fitted with impermeable surfacing and sealed drainage to prevent fugitive emissions. There is the ability to store water in a sealed sump.  Waste is stored and treated inside the MRF building minimising rainwater infiltration.  Liquids (e.g. oil for plant maintenance) are stored in appropriate containers with secondary containment.	Low		
Emissions to	Local water	Infiltration	Pollution of surface	Low	Low	Waste treatment and storage areas are indoors and	Low		



	Table 4.1: Risks to the Environment and Mitigation Measures									
Hazard	Receptor	Pathway	Consequence	Probability of exposure without mitigation	Overall Risk	Mitigation measures	Residual risk			
surface water	courses with potential to reach Mill River	through the ground, or run off direct to surface water/drains from leaks.	water, harm to wildlife			provided with impermeable surfacing and sealed drainage. There will be a sleeping policeman at entrance of building to prevent any liquid leaving the building.  Liquids (e.g. oil for plant maintenance) are stored in appropriate containers with secondary containment.				
Emissions of nitrogen oxides to air	Local residents and workers	Through the air	Risk to human health	Low	Low	Plant serviced and maintained in accordance with manufacturer's recommendations. Compliance with NRMM regulations. Where plant is replaced, lower emission models chosen where practicable.	Low			
Fire	Local residents or workers	Through the air	Risk to health from smoke inhalation	Medium	Medium	Wastes to be stored in bays with fire resistant bay walls and 1m headroom to minimise the risk of fire spreading. Quantity of combustible waste in line with EA Fire Prevention Plan guidance, waste treated within 72 hours to avoid self-heating. Good housekeeping with fire watch at the end of the day and in case of hot works. Fire detection and suppression systems fitted in building. Fire Prevention Plan is in place.	Low			
Fire water	Groundwater	Infiltration	Pollution of	Medium	Medium	The site is provided with impermeable surfacing and	Low			



Table 4.1: Risks to the Environment and Mitigation Measures								
Hazard	Hazard Receptor Pathway Consequence 4 Mitigation measures				Residual			
				Probability of exposure without mitigation	Overall Risk		risk	
	beneath the	through soil	groundwater or			sealed drainage. There is the ability to store water in a		
	site and local	or surface	surface water			sealed sump.		
	water courses	water run-off						
Plant	Local residents	Air and/or	Noise or pollution as	Low	Low	Preventative maintenance programme in place to ensure	Low	
breakdown	or workers or	water	a result of			all plant and infrastructure is inspected, serviced and		
and	groundwater or	pollution	breakdown			maintained.		
equipment	surface water	depending on				Damaged plant or infrastructure taken out of service until		
failure		the nature of				repaired by a competent person.		
		the break				Waste treatment inside a building with impermeable		
		down				pavement to provide containment.		
						Staff training conducted and only competent staff to		
						operate machinery.		



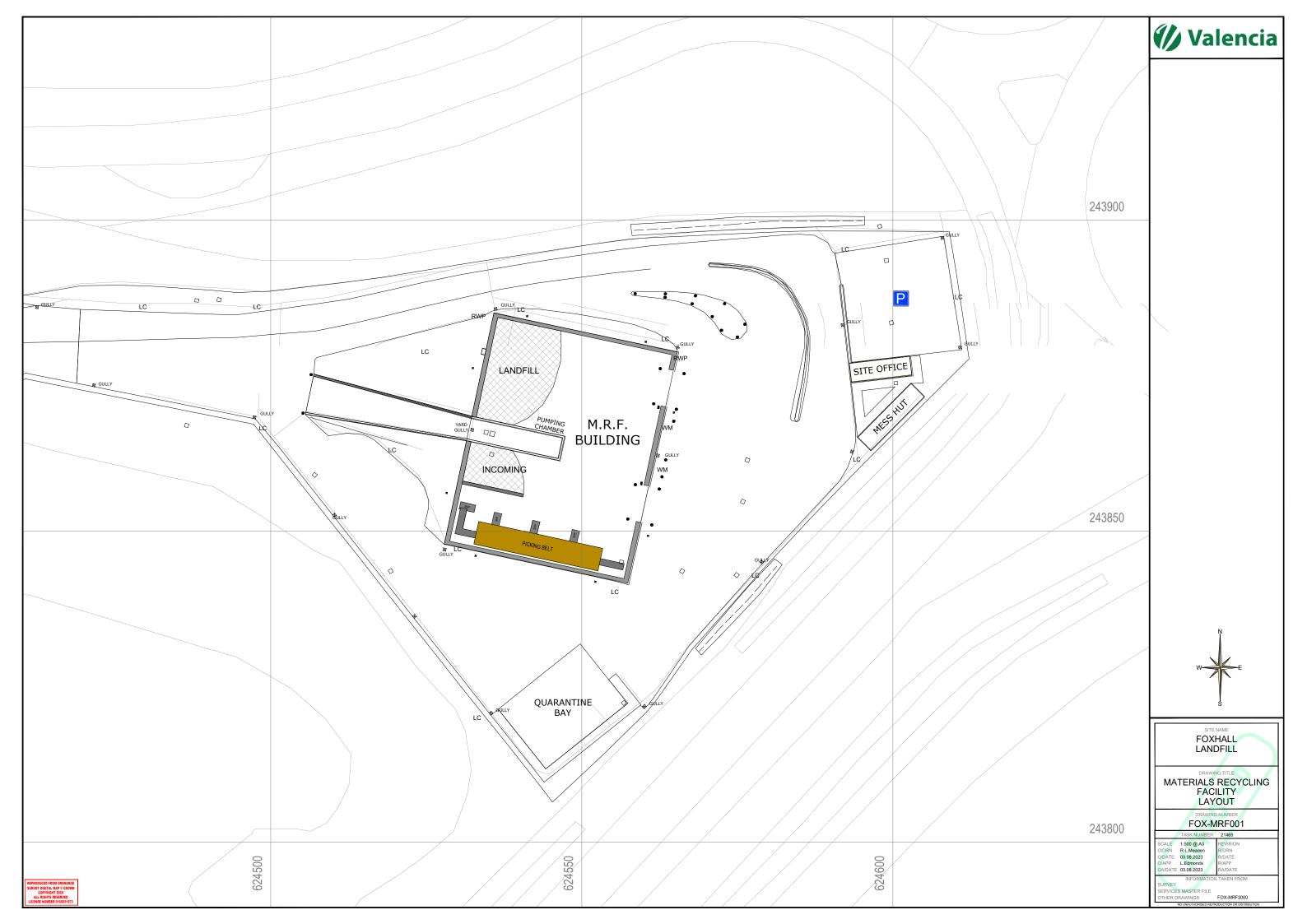
## 5 CONCLUSION

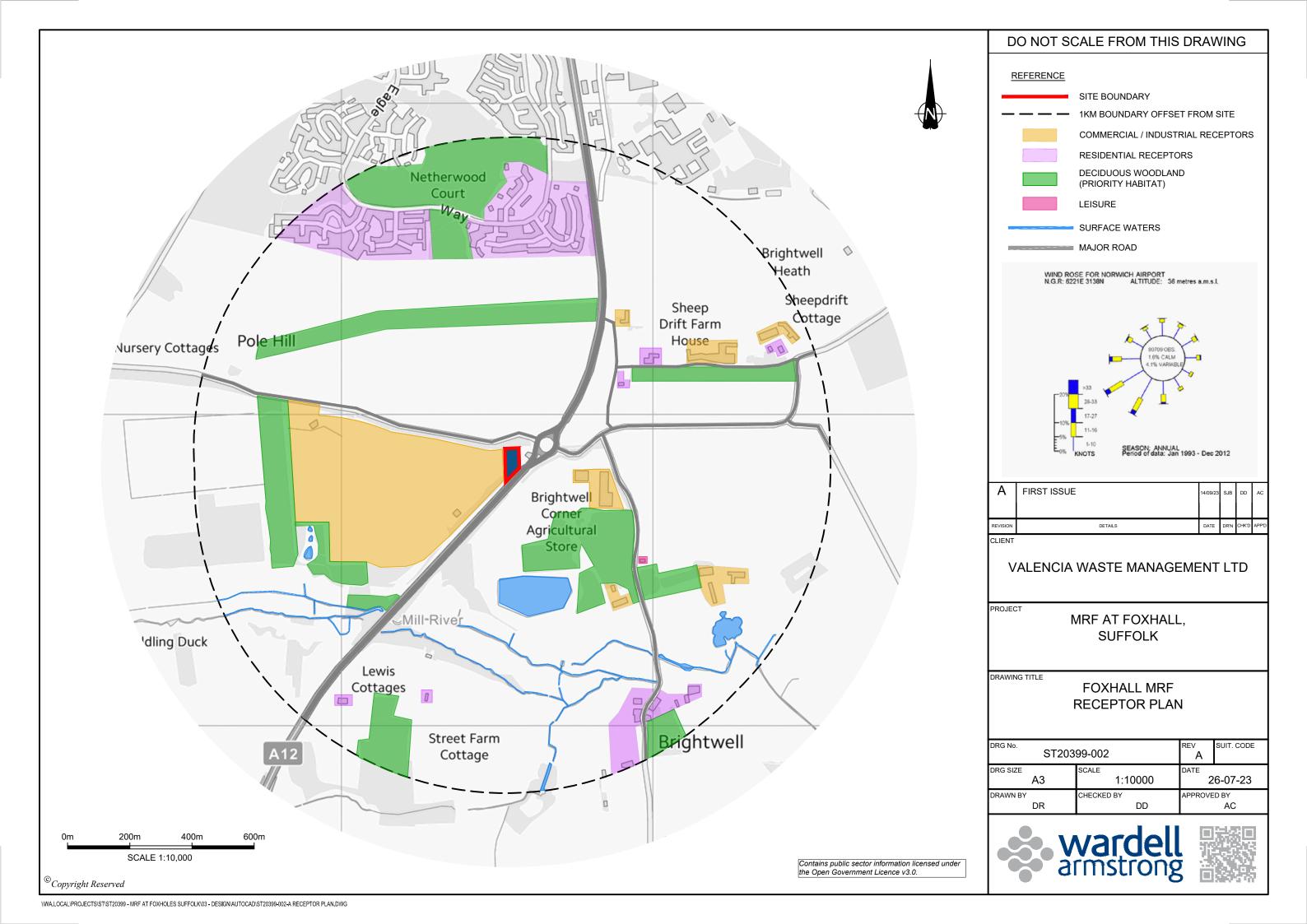
- 5.1.1 The closest commercial and industrial receptor is Brightwell Corner Agricultural Store and Storage Barns, located 160m to the east of the Site, which is buffered from the site by the A12 dual carriage way and vegetation. The closest residential receptor is a property which lies 370m away. Any fugitive dust and noise emissions are likely to dissipate before reaching these receptors.
- 5.1.2 Mill River lies approximately 540m to the south and there are sensitive habitats close to the site including Ipswich Heaths SSSI and areas of deciduous woodland, but measures are in place to contain leachate, dust and litter which will minimise the potential impact.
- 5.1.3 Measures are in place to minimise the risk of emissions from the site, with all operations contained inside a building. The site will operate in accordance with a written Environmental Management System including a Dust Management Plan, Fire Prevention Plan and Odour Management Plan.
- 5.1.4 The MRF will operate in line with guidance on the appropriate measures for non-hazardous and inert waste permitted facilities.
- 5.1.5 The operation of the MRF is not expected to increase the risk over and above the risk already present due to the permitted landfill.

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